

- Verbena santiaguensis (Covas & Schnack) Moldenke [Massachusetts]
Verbena santiaguensis x megapotamica Dermen [Massachusetts]*
Verbena scrobiculata Griseb. [Brazil]
Verbena simplex Lehm. [Massachusetts]
Verbena stricta Vent. [Belgium]
Verbena sulphurea D. Don [Belgium]
Verbena tenera Spreng. [Belgian Congo]
Verbena tenuisecta Briq. [Belgian Congo & Java]
Verbena tenuisecta var. alba Moldenke [Java]
Verbena urticifolia L. [Belgium, Massachusetts, & New York]
Verbena urticifolia x lasiostachys Dermen [Massachusetts]*
Verbena urticifolia x neomexicana Dermen [Massachusetts]*
Verbena xutha Lehm. [New York]
Vitex agnus-castus L. [Cuba & Southern Rhodesia]
Vitex hollrungii Warb. -- to be deleted
Vitex negundo L. [California & Réunion]
Vitex negundo var. intermedia (P'ei) Moldenke [Java]
Vitex pinnata L. [Madagascar & Réunion]
Vitex trifolia L. [Belgium, Johnston Island, & Réunion]
Vitex trifolia var. heterophylla (Mak.) Moldenke [Belgium]
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ADDITIONAL NOTES ON THE ERIOCAULACEAE. VI

Harold N. Moldenke

ERIOCAULON CINEREUM R. Br.

The species ascends to 5200 feet in Kashmir.

Additional citations: INDIA: Kashmir: Koelz 9040 (N).

ERIOCAULON DECANGULARE L.

The common name "Late Eriocaulon" is given for this species in "The Carolinian Florist of Governor John Drayton of South Carolina", p. 14 (1943), where it is called Eriocaulon serotinum Walt.

ERIOCAULON SIGMOIDEUM C. Wright

The specimens cited below were mis-identified as E. fuliginosum C. Wright by the collector. It has been collected in anthesis in September.

Additional citations: CUBA: Pinar del Rio: C. F. Baker 2098 (Es, Po--185877).

ERIOCAULON TEXENSE Körn.

Additional citations: TEXAS: Houston Co.: Warner s.n. [Grape-

land Bog, May 30th, '36] (Hu). Jefferson Co.: G. L. Fisher 38037 (Gg-276679). Leon Co.: F. A. Barkley 13556 (Au, N). Milam Co.: Tharp 4434c (Au, N), 44344 (N), 44344b (N, N). Robertson Co.: Painter & Barkley 13540 (Gg-321530, N, N); Rowell 8050 (N), 8138 (N).

ERIOCAULON THWAITESII Körn.

Additional citations: INDIA: Madras: E. Barnes B.9a (F—photo, K, N, N—photo, Sg—photo, Z—photo).

ERIOCAULON TOGOENSE Moldenke

Synonym: Eriocaulon xeranthemoides Van Heurck & Muell.-Arg. in Van Heurck, Obs. Bot. 103. 1870 [not E. xeranthemoides Bong., Act. Petrop. Sci. Math., sér. 4, 1: 635. 1831].

ERIOCAULON TRILOBATUM Ruhl.

Additional citations: MADAGASCAR: Hildebrandt 3715 (F—photo of isotype, N—isotype, N—photo of isotype, Sg—photo of isotype, W—808235—isotype, Z—photo of isotype).

ERIOCAULON TRUNCATUM Hamilt.

The species inhabits dried mud of rice paddies, dry ditches, extensive open acid waste plains, open grassy places, rice fields, and wet places in general. It has been collected from sea level to 1300 m. altitude, in flower and fruit in August, September, and December, and in fruit in June. It has been misidentified as E. cinereum R. Br., E. merrillii Ruhl., E. quinquangulare L., E. sieboldianum Sieb. & Zucc., E. gracile Mart., and E. sikokianum Maxim. Steward, Chiao, & Cheo describe the "scales" as "chalky-white".

Additional citations: INDIA: Assam: Masters s.n. (K). Madras: J. S. Gamble 14771, in part (K). West Bengal: Helfer 136 (Bt, W-1669080). Province undetermined: R. Wight 2368 (K). BURMA: Royle s.n. (D-824287). CHINA: Kiangsi: H. C. Cheo 386 (Gg-276708); Tsiang 9968 (N), 10532 (N), 10785 (N). Kwangtung: E. Sampson s.n. [Canton] (Pa). Kweichow: Steward, Chiao, & Cheo 111 (N). Province undetermined: E. Faber s.n. (N). HONAM ISLAND: E. D. Merrill 9830 (Gg-105747). JAPAN: Kiushiu: Ichikawa 20046 (D-627659). HAINAN ISLAND: Liang 66137, in part (N). FRENCH INDO-CHINA: Annam: Kuntze 3671 (N). Tonkin: Poilane 8061 (N), 8071 (N), 8073 (N), 8083 (N). PHILIPPINE ISLANDS: Luzon: M. K. Clemens s.n. [Manila, Sept. 1923] (Or-18404); Elmer 11350 (N); E. D. Merrill 3624 (N).

ERIOCAULON USSURIENSE Körn.

Additional citations: UNION OF SOCIALIST SOVIET REPUBLICS: Far Eastern Territory: Melvil s.n. [31/VIII/1926] (Mg).

ERIOCAULON VAGINATUM Körn.

Additional citations: BRAZIL: Minas Geraes: Mello Barreto 9496 [Herb. Jard. Bot. Belo Horiz. 24032] (N); Mendes Magalhaes 307 [Herb. Jard. Bot. Belo Horiz. 32582] (N), 483 [Herb. Jard. Bot. Belo Horiz. 34543] (N). PARANÁ: Collector undesignated 35 [Herb. Mus. Parana. 1944] (N); G. Jönsson 933a (D-653628); Tessmann 3382 [Herb. Mus. Parana. 3382] (N). RIO GRANDE DO SUL: Friedrichs s.n. [Rambo 30670] (N).

ERIOCAULON VANHEURCKII Muell.-Arg.

Synonym: *Eriocaulon vanheureckii* Muell.-Arg. apud Razi, Journ. Mysore Univ. 7 (4): 77, sphalm. 1946.

Razi, in the reference cited above, records this species from Mysore and describes it as a geophyte.

ERIOCAULON VOLKENSII Engl.

The species has been collected along a damp path in a savanna at Mount Kilimanjaro, altitude 9000 feet, blooming in July.

Additional citations: UGANDA: R. H. Goodwin 68 (F--photo, G, N, N--photo, Z--photo). KENYA: Mearns 1480 (W-631535).

ERICCAULON WIGHTIANUM Mart.

The binomial is sometimes accredited to "Meet." on herbarium labels. The species is recorded from Mysore by B. A. Razi in Journ. Mysore Univ. 7 (4): 77. 1946, and described by him as a geophyte.

Additional citations: INDIA: BOMBAY: Ritchie 1244 (T). WEST BENGAL: Helfer 135 (Bt, W-1669079). BURMA: TENASSERIM: Helfer 5584 (C); T. B. McClelland s.n. [Rangoon] (K); Wallich 6078 (K).

ERIOCAULON WOODII var. *MINOR* Ruhl.

Additional citations: UNION OF SOUTH AFRICA: NATAL: Rudatis 1420 (F--photo, N, N--photo, Sg--photo, W-633806, Z--photo).

ERIOCAULON WOODSONIANUM Moldenke

The original collection of this species was made at the margin of a pool in a savanna along the road between PANAMÁ and CHEPO, flowering in November.

Additional citations: PANAMA: PANAMÁ: Dodge, Hunter, Steyermark, & Allen 16717 (E-1120005-type, N--photo of type, Z--photo of type).

ERIOCAULON XERANTHEMUM Mart.

Additional citations: INDIA: MADRAS: J. S. Gamble 14771, in part (K).

ERIOCAULON YUNNANENSE Moldenke

Additional citations: CHINA: Yunnan: A. Henry 12362 (N-type).

LACHNOCAULON ANCEPS (Walt.) Morong

Synonyms and literature: Bull. Torrey Bot. Club 18: 360. 1891; Britton & Br., Ill. Fl., ed. 1, 1: 373, fig. 903. 1896; W. Ruhland in Engler, Das Pflanzenreich 4 (30): 240, fig. 36. 1903; Small, Fl. Southeast. U. S. 235. 1903; Robinson & Fern. in Gray's Man., ed. 7, 262. 1908; Fernald, Rhodora 39: 395 & 480. 1937; Fernald, Rhodora 40: 402. 1938; Moldenke, N. Am. Fl. 19: 50. 1937. Eriocaulon anceps Walt., Fl. Carol. 83. 1788; The Carolinian Florist of Governor John Drayton of South Carolina, p. 14. 1943. Eriocaulon villosum Michx., Fl. Bor.-Am. 2: 166. 1803; Pursh, Fl. Am. Sept. 1: 92. 1814; Nutt., Gen. 1: 90. 1818; Roem. & Schult., Syst. 2: 866. 1817; Ell., Bot. S. Car. & Ga. 2: 566. 1824. Lachnocaulon michauxii Kunth, Enum. Pl. 3: 497. 1841; Körn., Linnaea 27: 565. 1854; Chapm., Fl. South. U. S. 504. 1860. Sacnocaulon auceps Cuthbert, in herb. Lachnanthes michauxii Kunth, in herb.

According to the information on their labels, collectors have found this species in moist pine barrens, peaty excavated areas in savannas and sides of ponds, shrub bogs, grassy swamps, damp pinebarrens, damp grassy fields, low sandy ground, open flat woods, sphagnum bogs, longleaf pine flatwoods, wet places in damp pine woods, moist sandy soil bordering bogs, longleaf pine savannas, wet grassy sand, low pinelands near lake shores, low moist sandy soil along small open ditches, wet mud in roadside ditches, wet muddy soil and low wet meadows, moist rich sinks in savannas, roadside ditches, sand ridges, wet meadows, dry sterile white sand beneath Pinus palustris and Quercus virginiana, peaty soil in open woods, peaty meadows, moist pinebarrens, edges of wet meadows, moist mucky recently cleared soil, moist black soil of low ground, and pine woods bordering peaty swales and open bushy or wooded swamps. It is said to form large tufts in moist meadows and continuous turf in sphagnum bogs. It has been collected in flower and fruit from February to August. The Curtiss s.n. at the Carnegie Museum is a mixture with Xyris; the Frye s.n. at Morgantown has the peduncles very much twisted. Stuhr s.n. at Oregon State College is a mixture with grasses.

The R. K. Godfrey s.n. (Plant. Exsicc. Gray. 926) is often cited as L. minus and resembles that species. However, it seems to be a good match for depauperate forms of L. anceps and so had perhaps better be placed here. The collector on F. Harper 259 notes that its very small heads are "possibly due to drought".

The species has been confused by collectors and herbarium workers with Eriocaulon compressum Lam., E. gnaphaloides Michx., Lachnocaulon minus (Chapm.) Small, L. beyrichianum

Sporleider, "L. digynum Holm", and Syngonanthus flavidulus (Michx.) RuhI.

Common names recorded include "hairy pipewort" and "hat pins", while Drayton's Carolinian Florist (cited above) gives the name "double eyed or edged ericauon".

Additional citations: VIRGINIA: Caroline Co.: F. J. Hermann 10774 (N). Greenville Co.: Smith & Hodgdon s.n. [Plant. Exsicc. Gray. 1028] (Al, Ba, Dp--21803, Du--277489, Gg--284473, Gu--21608, H--67354, I, Mg, Ms, Ms, N, N, Po--257854, Ur, We); Fernald & Long 8630 (Po--354757). Sussex Co.: Fernald & Long 8181 (Ba, Du--276754, Gg--316196). NORTH CAROLINA: Beaufort Co.: Wiegand & Manning 682 (Po--216757). Bladen Co.: Ashe s.n. [May 20, 1896] (Ur); Blomquist 5741 (H--9661); A. A. Heller 11102 (Du--157977); Oosting 3555 (H--28954). Brunswick Co.: Billings 384 (Bt--45290). Columbus Co.: P. O. Schallert s.n. [Nakina, 5-25-34] (Bt--25886), s.n. [Nakina, 12/20/34] (Or--34028), s.n. [Pireway, 8/4/33] (Ga). Craven Co.: D. S. Correll 1467 (H--34043). Duplin Co.: D. S. Correll 1320 (H--34045). Greene Co.: Godfrey 4316 (H--22275). Harnett Co.: Blomquist 10847 (H--55537); Blomquist & Correll 2524 (H--34044); Godfrey 4253 (H--9170). Hoke Co.: D. S. Correll 1120 (H--34086). Iredell Co.: M. E. Hyams 162 (Ob--23920), 10872 (Se--4139), s.n. [Statesville] (Po--119239). Johnston Co.: M. A. Chase 3102 (Ur, Ur). Lenoir Co.: Randolph & Randolph 785 (Ba). Martin Co.: Brushel 10111 (Vt). Moore Co.: B. Knipe s.n. [Pine Bluff, June & July 1901] (Cm); P. O. Schallert s.n. [9/1/40] (N). New Hanover Co.: R. K. Godfrey s.n. [Plant. Exsicc. Gray. 926] (Al, Du--267148, I, Mg, Po--254450, Se--65178, Ur, We); M. A. Chase 3153 (Ur). Onslow Co.: Randolph & Randolph 947 (Ba). Pender Co.: S. F. Blake 11905 (Gg--290806). Richmond Co.: D. S. Correll 1086 (H--34039). Robeson Co.: D. S. Correll 1242 (H--34046); G. J. Schallert s.n. [7/4/40] (Gg--316197); P. O. Schallert s.n. [7/4/40] (Bt--53896, Or--43109). Sampson Co.: Godfrey 4511 (H--22750). Scotland Co.: D. S. Correll 1190 (H--34034). Wake Co.: Buell 1934 (H--71192). County undetermined: Ashe 2287 [Middle N. C.] (Ur); M. E. Hyams s.n. [Eastern N. C.] (Pa), s.n. [N. Carolina] (Ut). SOUTH CAROLINA: Darlington Co.: J. B. S. Norton s.n. [July 28, 1920] (Al). Dorchester Co.: Hexamer & Maier s.n. [Summerville, May 26, '55] (Cm). Georgetown Co.: Godfrey & Tryon 51 (Gg, H--58710, N). Hampdon Co.: Wiegand & Manning 686 (Po--216758). Horry Co.: P. O. Schallert s.n. [Wampee, 8/4/33] (Bt--18713). Lexington Co.: Godfrey & Tryon 1210 (N). Orangeburg Co.: A. S. Hitchcock s.n. [Orangeburg, Aug. 17, 1905] (Ur). County undetermined: A. W. Chapman s.n. (Pr). GEORGIA: Brantley Co.: Pyron & McVaugh 303 (Gu--13063).